

Worksheet on Energy, Wavelength, etc.

Write the formulas and constants that pertain to energy, frequency, and wavelength in the space below.

Calculate the wavelength of light that has a frequency of $1.00 \times 10^8 \text{ Hz}$.

A lamp of Na vapor emits light with a wavelength of 589 nm. What is the frequency of this light?

What is the energy of a photon with a frequency of 78.0 Hz?

When an electron falls from the fifth to second energy level, $4.58 \times 10^{-19} \text{ J}$ of energy are released, what is the frequency of this EM radiation?

In the above problem, what is the wavelength of the emitted energy?

Cobalt-60 is a radioactive isotope of cobalt that is used in radiation therapy for cancer patients. If the wavelength of emitted radiation is $1.00 \times 10^{-18} \text{ m}$, what is its energy?